

Notice of Allowability**Application No.**

10/509,979

Applicant(s)

QUINET ET AL.

Examiner

Abdou Karim Seye

Art Unit

2194

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 09/10/2009.
2. ☒ The allowed claim(s) is/are 5-13, 19 and 25-35.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

EXAMINER'S AMENDMENT

1. . An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Thomas Bethea (Reg. No. 53987) on 09 December 2009.
3. The application has been amended as follows:

a. Amendment to the Claims :The claims of this application have been amended as follow.

1-4 (Canceled)

5. (Currently amended) A method, in a communications network, of controlling an object transfer from a first component to a second component remote from the first component, wherein the object transfer is based on a plurality of object requests relating to objects referred to in one or more codes to be processed by the second or another component of the communications network, the method comprising steps of:
utilizing an intermediate component positioned between the first and the second component for:

sending an object request to the first component;

receiving the requested object from the first component;

estimating traffic over a link, comprising a number of connections,
between the intermediate component and the second component to determine
whether the link is fully used before suspending a connection to avoid wasting
available bandwidth;

dynamically assigning a priority to the requested object, wherein an initial
priority has been assigned to the requested object on the basis of an analysis of
at least one of the object request and the code that refers to the requested
object; and

depending on the priority of the requested object, the intermediate
component delaying the requested object when the requested object has a
priority that is below a threshold priority and forwarding the requested object to
the second component when the requested object has a priority that is above
said threshold priority.

wherein delaying of the requested object includes at least one of

instructing the second component to repeat the object request. The
method of claim 4, wherein instructing the second component to repeat
the object request includes:

assigning a specific attribute to the object

to be delayed;

informing the second component of the attribute;

receiving a reference to the attribute from the second component; and

upon receipt of the reference to the attribute, sending the delayed object to the second component or further delaying the delayed object;

suspending a connection to the second component via which the requested object is to be forwarded, and

informing the second component that the requested object will automatically be forwarded at a later point in time.

6. (Currently amended) ~~A~~ [[The]] method of claim 1 wherein, in a communications network, of controlling an object transfer from a first component to a second component remote from the first component, wherein the object transfer is based on a plurality of object requests relating to objects referred to in one or more codes to be processed by the second or another component of the communications network, the method comprising steps of:

utilizing an intermediate component positioned between the first and the second component for:

sending an object request to the first component;

receiving the requested object from the first component;

estimating traffic over a link, comprising a number of connections, between the intermediate component and the second component to determine

whether the link is fully used before suspending a connection to avoid wasting available bandwidth;

dynamically assigning a priority to the requested object, wherein an initial priority has been assigned to the requested object on the basis of an analysis of at least one of the object request and the code that refers to the requested object; and

depending on the priority of the requested object, the intermediate component delaying the requested object when the requested object has a priority that is below a threshold priority and forwarding, when the priority of the requested object is above the threshold priority, the requested ~~objects are~~ forwarded object via the number of connections to the second component, based on comparing ~~[[the]]~~ an average throughput of the number of connections to the second component to an amount of data that is currently cached or buffered in the intermediate component.

7. (Currently amended) The method of claim 6, wherein selected ones of the number of connections to the second component are suspended dependent upon the priority of the requested object that is received from the first component and that is to be forwarded via the selected ones of the connections.

8. (Previously Presented) The method of claim 6, further including the step of dynamically allocating a specific share of processing capabilities to each of the number of connections.

9. (Currently amended) The method of claim [[1]] 6, further comprising:
sending a code request to the first or a third component;
receiving the requested code from the first or the third component;
analyzing the received code with respect to references to objects;
assessing the references to objects with the purpose of assigning initial priorities to the objects referred to in the received code.

10. (Currently amended) The method of claim [[1]] 6, wherein upon receipt of a response containing the object requested from the first component, the response is evaluated with respect to the received object's priority in order to determine whether or not the initial priority of the received object has to be updated.

11. (Currently amended) The method of claim [[1]] 6, further comprising generating a priority list that contains priority information for individual objects or classes of objects.

12. (Previously Presented) The method of claim 11, further comprising repeatedly assessing the priority list with respect to at least one of updating priority

information, deleting objects or classes of objects and corresponding information, from the priority list.

13. (Currently amended) The method of claim [[1]] 6, wherein the steps are performed by a proxy component situated on the first component, on the second component or configured as a separate hardware component of the communications network.

14-18. (Canceled)

19. (Currently amended) An apparatus in a communications network for controlling an object transfer from a first component to a second component which is remote from the first component, wherein the object transfer is based on a plurality of object requests relating to objects referred to in one or more codes to be processed by the second component of the communications network, the apparatus comprising:

an intermediate component between the first component and the second component;

a communications interface coupled with the intermediate component for sending an object request to the first component and for receiving the requested object from the first component:

means for estimating traffic on a link, comprising a number of connections, between the intermediate component and the second component for determining

whether the link is fully used before suspending a connection in order to avoid wasting available bandwidth;

a processing unit for dynamically assigning a priority to the requested object, wherein an initial priority has been assigned to the requested object on the basis of an analysis of at least one of the object request and the code that refers to the requested object, and

wherein the processing unit depending on the priority of the requested object, delaying the requested object when the requested object has a priority that is below a threshold priority and controlling the communications interface to forward the requested object to the second component when the requested object has a priority that is above greater than or equal to said threshold priority, wherein the requested object is forwarded via the number of connections based on comparing the average throughput of the number of connections to the second component to an amount of data that is currently cached or buffered in the intermediate component.

20-24. (Canceled)

25. (New) The method of claim 5, wherein the delaying is performed such that an order in which the objects are received from the first component differs from the order in which the objects are forwarded to the second component.

26. (New) The method of claim 5, wherein the object request is received from the second component or generated by the intermediate component.

27. (New) The method of claim 6, wherein the delaying is performed such that an order in which the objects are received from the first component differs from the order in which the objects are forwarded to the second component.

28. (New) The method of claim 6, wherein the object request is received from the second component or generated by the intermediate component.

29. (New) The method of claim 6, wherein delaying of the requested object includes at least one of

instructing the second component to repeat the object request,

suspending a connection to the second component via which the requested object is to be forwarded, and

informing the second component that the requested object will automatically be forwarded at a later point in time.

30. (New) The method of claim 29, wherein instructing the second component to repeat the object request includes:

assigning a specific attribute to the object to be delayed;

informing the second component of the attribute;

receiving a reference to the attribute from the second component; and
upon receipt of the reference to the attribute, sending the delayed object to the second component or further delaying the delayed object.

31. (New) The method of claim 5, further comprising:
sending a code request to the first or a third component;
receiving the requested code from the first or the third component;
analyzing the received code with respect to references to objects;
assessing the references to objects with the purpose of assigning initial priorities to the objects referred to in the received code.

32. (New) The method of claim 5, wherein upon receipt of a response containing the object requested from the first component, the response is evaluated with respect to a received object's priority in order to determine whether or not an initial priority of the received object has to be updated.

33. (New) The method of claim 5, further comprising generating a priority list that contains priority information for individual objects or classes of objects.

34. (New) The method of claim 33, further comprising repeatedly assessing the priority list with respect to at least one of updating priority information, deleting objects or classes of objects and corresponding information, from the priority list.

35. (New) The method of claim 5, wherein the steps are performed by a proxy component situated on the first component, on the second component or configured as a separate hardware component of the communications network.

Allowable Subject Matter

4. Claims **5-13, 19 and 25-35** are allowed.

5. The following is an examiner's statement of reasons for allowance:

The arts of record used as the basis for the previous rejection, Bhagwat et al (US 6563517), Ferguson (U.S 20020178232) do not expressly teach or render obvious the invention as recited in independent **claims 5, 6 and 19**.

a. As to **claim 5**, the art of record does not expressly teach wherein wherein delaying of the requested object includes at least one of instructing the second component to repeat the object request, wherein instructing the second component to repeat the object request includes: assigning a specific attribute to the object to be delayed; informing the second component of the attribute; receiving a reference to the attribute from the second component; and upon receipt of the reference to the attribute, sending the delayed object to the second component or further delaying the delayed

object; suspending a connection to the second component via which the requested object is to be forwarded, and informing the second component that the requested object will automatically be forwarded at a later point in time , as a whole. More over, the art of record does not provide a basis of evidence for asserting a motivation driven from the art or from one knowledgeable in the art, that one of ordinary skill in the art at the time the invention was made would have modified the method of controlling an object transfer to combine the disclosed limitations as recited in the context of **Claim 5**.

b. As to **claim 6**, the art of record does not expressly teach estimating traffic over a link, comprising a number of connections, between the intermediate component and the second component to determine whether the link is fully used before suspending a connection to avoid wasting available bandwidth , wherein requested object is forwarded via the number of connections based on comparing the average throughput of the number of connections to the second component to an amount of data that is currently cached or buffered in the intermediate component as a whole. More over, the art of record does not provide a basis of evidence for asserting a motivation driven from the art or from one knowledgeable in the art, that one of ordinary skill in the art at the time the invention was made would have modified the method of controlling an object transfer to combine the disclosed limitations as recited in the context of **Claim 6**.

c. As to **Claim 19**, being directed to a system having substantially the same limitations as **Claim 6**, this claim is allowable for the same reasoning as recited in **Claim 6** above.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdou Karim Seye whose telephone number is 571-270-1062. The examiner can normally be reached on Monday - Friday 8:30 - 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sough Hyung can be reached on (571)272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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